



## WILDLIFE INTERPRETATIONS

### Introduction

Wildlife are inseparable from soil, water, and plant resources and are, therefore, integral components of all primary land and water systems. The types and densities of wildlife in a given area depends primarily on the amount and distribution of food, cover, water and living space. If any one of these elements is missing, inadequate or inaccessible, wildlife will be scarce or will not inhabit the area.

Wildlife productivity is usually positively correlated with soil productivity and most all soils produce some form of wildlife habitat. Soils generally influence wildlife populations indirectly; primarily through the natural plant communities that evolved with and are supported by the interaction of the underlying soils and their environment. Most wildlife habitat is created or improved by either planting or inducing natural establishment of suitable vegetation and maintained by manipulating existing vegetation. These activities are heavily impacted by soil capabilities and limitations.

### Soil Suitability Ratings For Wildlife Habitat

Wildlife habitat suitability rating interpretations based on the underlying soil(s) serve several purposes. First, such ratings aid in site selection on which certain wildlife habitat management practices may be successfully applied. Second, suitability ratings indicate the kinds of vegetation that may be successfully established (trees, shrubs, herbaceous plants and grasses, or supplemental food crops, etc.) and the intensity of management necessary to successfully establish, improve or maintain desired wildlife habitat based on soil capabilities and limitations. Third, the ratings provide a means of considering and grouping known soil conditions during broad scale wildlife land use planning, wildlife land acquisition, and recreation planning.

Suitability ratings are based on soils in their natural condition and do not consider present land use, existing vegetation, water resources, and the presence or absence of wildlife. Wildlife habitat suitability is expressed in terms of one of the following ratings:

**Well Suited** or “**Good**” indicates the element or kind of habitat of wildlife habitat desired is easily established, improved, or maintained. Few or no limitations affect management, and satisfactory results can be expected if the soil is used for the designated purpose.

**Suited** or “**Fair**” indicates the element or kind of wildlife habitat desired can be established, improved, or maintained in most places. Soil limitations are moderate and management is required and may be intensive to achieve satisfactory results.

**Poorly Suited** or “**Poor**” indicates that limitations are severe for the designated element or kind of wildlife habitat desired. Habitat can be established, improved, or maintained in most places, but management is difficult, must be intensive and results may be questionable.

**Unsuited** or “**Very Poor**” indicates that restrictions are very severe and that unsatisfactory results can be expected. Establishing, improving or maintaining the element or kind of wildlife habitat desired is impractical or impossible.

### **Description of Wildlife Habitat Elements**

**Grain and seed crops** are seed-producing annuals used by wildlife. Examples are corn, wheat, rye, oats, aeschynomene, millets, buckwheat and sunflowers. Major soil properties that affect the growth of grain and seed crops are depth of the root zone, texture of the surface layer, available water capacity, wetness, surface stoniness, pH, flood hazard, and slope. Soil temperature and soil moisture are also considerations.

**Grasses and legumes** are domestic perennial grasses and herbaceous legumes that are planted for wildlife food and cover. Examples are bahiagrass, switchgrass, perennial peanut, clover, alfalfa, vetch, aeschynomene, and vetch. Major soil properties that affect the growth of grasses and legumes are depth of the root zone, texture of the surface layer, available water capacity, wetness, surface stoniness, pH, flood hazard, and slope. Soil temperature and soil moisture are also considerations.

**Wild herbaceous plants** are native and naturally established herbaceous grasses and forbs, including weeds, that provide food and cover for wildlife. Examples are bluestem, indiagrass, goldenrod, lambsquarters, dandelion, blackberry, ragweed, foxtail grass, beggerweed and beggartick, and nightshade. Major soil properties that affect the growth of these plants are depth of root zone, texture of the surface layer, available water capacity, wetness, pH, surface stoniness, and flood hazard. Soil temperature and soil moisture are also considerations.

**Hardwood trees** are deciduous trees and the associated woody understory provide cover for wildlife and produce nuts or other fruit, buds, catkins, twigs, bark, or foliage that wildlife eat. Examples of native trees are oak, poplar, cherry, apple, birch, American beech, elm, maple, dogwood, hickory, hazelnut, hackberry, black walnut, dogwood, sassafras, common persimmon, sweetgum, bay, American hophornbeam, and pecan. Fruit bearing shrubs that are commercially available are viburnum, hawthorn, sumac, American beautyberry, blueberry, wax myrtle, holly, crabapple, plums, Major soil properties that affect growth of hardwood trees and shrubs are depth of the root zone, available water capacity, pH, and wetness.

**Coniferous plants** are cone-bearing trees, shrubs, or ground cover that furnish habitat or supply food in the form of browse, seeds, or fruitlike cones. Examples are pine cypress, yew, cedar, and juniper. Major soil properties that affect the growth of coniferous plants are depth of the root zone, pH, available water capacity, and wetness.

**Wetland plants** are annual and perennial wild herbaceous plants that grow on moist or wet sites, exclusive of submerged or floating aquatics. They produce food or cover for wildlife that use wetlands as habitat. Examples of wetland plants are smartweed, wild millet, rushes, sedges, reeds, wildrice, arrowhead, waterplantain, pickerelweed, and cattail. Major soil properties affecting wetland plants are texture of the surface layer, wetness, reaction, slope, and surface stoniness.

**Shallow water areas** are bodies of surface water that have an average depth of less than 5 feet and are useful as habitat for wildlife. They can be naturally wet areas, or they can be created by dams or

levees, or by water-control devices in marshes or streams. Examples are waterfowl feeding areas, beaver ponds, wildlife watering facilities, green tree reservoirs, and natural shallow marshes, wet prairies or slough. The major soil limitation is wetness.

### **Kinds of Wildlife Habitat**

**Openland wildlife habitat** consists of croplands, pastures, meadows, rangeland and areas that are overgrown with grasses, herbs, shrubs and vines. These areas produce grain and seed crops, grasses and legumes, and wild herbaceous plants. The kind of wildlife attracted to these areas include bobwhite quail, meadowlark, sparrow, snakes, killdeer, cottontail rabbit, red fox, mourning dove, red-winged blackbird, and hawks.

**Woodland wildlife habitat** consists of hardwoods or conifers, or a mixture of these and associated grasses, legumes, and wild herbaceous plants. Examples of wildlife attracted to this habitat are turkey, woodcock, thrushes, snakes, woodpeckers, owls, tree squirrels, gray fox, raccoon, white-tailed deer, and black bear.

**Wetland wildlife habitat** consists of water-tolerant plants in open, marshy or swampy, shallow water areas. Examples of wildlife attracted to this habitat are ducks, geese, herons, egrets, bitterns, rails, kingfishers, amphibians, snakes, alligator, otter, mink, and beaver.